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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/642,205

08/18/2003

Tomoaki Hattori

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10/26/2005

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EXAMINER

TRAN, HUAN HUU

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AKC

Office Action Summary	Application No. 10/642,205	Applicant(s) HATTORI, TOMOAKI	
	Examiner Huan H. Tran	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-25 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 8-16 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/03/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 06/03/05 has been entered.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings were received on 01/05/04. These drawings are approved.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4, 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is not clear regarding the relationship between the polygon mirror (recited in claim 1) and the deflecting unit (recited in claim 4). It appears that the above-mentioned elements refer to a same element. Clarification/correction is requested.

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Claim 9 is not clear regarding the relationship between the deflecting unit recited in claim 9 and the polygon mirror recited in base claim 1.). It appears that the above-mentioned elements refer to a same element. Clarification/correction is requested.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3, 4, 17, 18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Tashiro et al. (JP 2002-207395 cited in the IDS filed on 06/03/05).

As to claims 1, 3 and 17, Tashiro et al. discloses an image forming device comprising:

a plurality of image forming units (1), each of the plurality of image forming units being provided for each of a plurality of colors, the plurality of image forming units being aligned vertically (see Fig. 1); and

a casing that accommodates the plurality of image forming units, each of the plurality of image forming units comprising:

a photosensitive member (10);

an exposing device (12) that exposes the photosensitive member to a laser beam to form electrostatic latent images thereon; and

a developing device (13) that develops the electrostatic latent images formed on the photosensitive member using developer to form developer images,

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wherein the developing device and the exposing device are aligned to overlap with each other in a vertical direction (see Fig. 1) , when the casing is disposed in an orientation in which the casing is intended to be used;

wherein the exposing device includes (see Fig.3):

a laser beam emitting unit (81) that emits a laser beam;

a polygon mirror/deflecting unit (82) that reflects the laser beam emitted by the laser beam emitting unit; and

a lens (83) through which the laser beam reflected by the polygon mirror passes; and

wherein the polygon mirror, the lens, and a corresponding portion of the photosensitive member (10) that is irradiated by the laser beam are arranged on a same horizontal plane (see Fig. 1) , the laser beam that has passed through the lens being directly-irradiated onto the corresponding portion of the photosensitive member.

As to claims 4 and 18, as seen in Figs. 1 and 3, the drive unit (not shown but is conventionally directed beneath the mirror) for driving the polygon mirror (82) and the developing device (13) being aligned to overlap with each other in a horizontal direction.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Tashiro et al. in view of Yamamoto et al. (US Patent 6381428 cited in the prior Office action).

Tashiro et al. discloses essentially the claimed invention except for the limitation "wherein the photosensitive member and the developing device are detachably mounted on the casing."

Yamamoto et al. teaches the missing limitation. As shown in Fig. 5, the photosensitive unit 22 containing a plurality of photosensitive members (1a-d) and the developing device (5a,5b,5c,5d) are detachably mounted on a casing (200).

Therefore it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamamoto et al. and Tashiro et al. to allow the photosensitive members and the developing devices in Tashiro et al. to be detachable from the casing for maintenance or exchange service.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tashiro et al. in view of Tokutake et al. (JP 2002-082507 cited in the IDS filed on 06/03/05).

Tashiro et al. discloses essentially the claimed image forming device except for the specifics of the developing device as recited in the claim.

Tokutake et al. discloses such developing device. As seen in the drawings, the developing devices ((4Y-4K) each includes a developer accommodating unit (hopper/container) that accommodates developer; a developer bearing member (the leftmost roller) provided to confront the photosensitive member (1Y-1K), the developer bearing member bearing developer; and

a plurality of developer conveying members aligned substantially in a horizontal direction in the developer accommodating unit, the plurality of developer conveying members conveying developer to the developer bearing member.

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It would have been obvious to one in the art to use the thin developing device taught by Tokutake et al. in the image forming device of Tashiro et al. to reduce the height of the image forming device since the developing devices have a thin shape.

Allowable Subject Matter

11. Claims 20-25 are allowed.

12. Claims 8-16, 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter:

Claims 8-15, 20-23 are allowable at least for the inclusion of the limitations pertaining to the positioning members provided to the photosensitive member and the exposing devices.

Claims 24-25 are allowable for the inclusion of the limitations pertaining to the support unit.

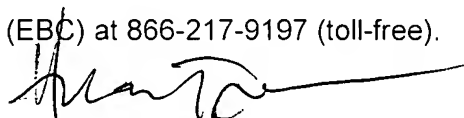
Claim 16 is allowable for the limitation pertaining to the manner in which the conveying belt holds the recording medium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan H. Tran whose telephone number is (571) 272-2261. The examiner can normally be reached on at work on W-F from 6:30 to 5; T are telework days.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbott can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Huan H. Tran
Primary Examiner
Art Unit 2861

hht
10/21/05